'Bartók, Ligeti and the Innovative Middle Road', in *Ligeti's Cultural Identities* ed. by Amy Bauer and Márton Kerékfy (New York and London: Routledge, 2016)
Chapter 9, pp. 149-162

Peter Edwards

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Prevailing historical narratives on music of the twentieth century variously trace extremes of progression and retrospect, as well as unity and multiplicity, associated with the values of modernism and postmodernism.[1] While the music of György Ligeti would seem to exhibit qualities from both ends of these scales, his famously ambiguous rhetoric and references to a 'third way'[2] infer an intention to seek out an alternative path beyond any such dichotomies: a middle road (*via media*) that does not connote compromise but freedom and experimentation. As this chapter will seek to illustrate, an investigation of particular aspects of Ligeti's compositional approach brings some clarity to this dialectical mode of thought. Moreover, the middle road and its manifestation in Ligeti's music can in part be attributed to the influence of his Hungarian heritage and Béla Bartók in particular, highlighting a significant but underexposed narrative in twentieth-century music.[3] I will suggest that the influence of Bartók permeates Ligeti's music and is of greater significance than currently acknowledged.

Prerequisite to the notion of a middle road are the extremes between which it runs – opposing concepts, methods, or principles. The middle road is thus usually considered synonymous with consolidation, moderation, or compromise in the interest of practical necessity and cooperation, or in order to achieve broad appeal and consensus. It is not normally associated with the progressive, alternative, or cutting edge, and would seem to have little to do with the supposed tenets of

[1] For a discussion of the changing conceptions of musical postmodernism in relation to modernism see Björn Heile, 'New Music and the Modernist Legacy' in *The Modernist Legacy*, ed. Björn Heile (Aldershot: Ashgate, 2009), pp. 1–7, and David Metzer, *Musical Modernism at the Turn of the Twenty-First Century* (Cambridge: Cambridge University Press, 2009), pp. 1–29.
[2] *György Ligeti in Conversation* (London: Eulenburg Books, 1983), p. 123.
[3] For two notable studies on the influence of Bartók on a wide range of composers, including Ligeti, see Simone Hohmaier, *'Ein zweiter Pfad der Tradition': Kompositorische Bartók-Rezeption* (Saarbrücken: Pfau, 2003) and Danielle Fosler-Lussier, *Music Divided: Bartók's Legacy in Cold War Culture* (Berkeley: University of California Press, 2007). See also Chapter 8 by Anna Dalos in this volume.

musical modernism, which emphasize innovation and anything other than compromise. The term is generally applied to music that is perceived to lack progressive techniques or radical new forms of expression; music that has little new to offer and repeats the outmoded expressions of the past – a middle road between the past and present that challenges neither.

Yet an alternative – less explicit but no less significant – understanding of the middle road inverts this definition and instead places it at the forefront of developments in twentieth-century music, not as a compromise but as an innovative and indeterminate option. Moreover, the notion can be drawn on to cast light on a particular aspect of Ligeti's creative thinking at a certain stage in his compositional development. It constitutes a critique of the dichotomous thought – upon which it is simultaneously reliant – that was perceived to preside in the musical discourse of the 1950s in particular. While history has since repudiated the tired false binary of

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retrospect and progress, this nonetheless provided creative impetus for a move into something different. Ligeti's music, understood through the influence of Bartókian harmony, emphasizes the broad, immanent complexity and contradictions contained within the middle road. The implications of the kind of progress that it represents potentially offer greater insight into the music of the twentieth-century.

An early reference to the middle road in the context of musical modernism is found in Schoenberg's foreword to his *Three Satires* for mixed choir, op. 28 (1925–6): 'I wanted to attack all those who seek their personal salvation by taking the middle road. For the middle road is the only one that does not lead to Rome.'[4] Schoenberg applies the term to those composers who seek to pass for modern without acknowledging the full consequences – Stravinsky is an intended target. He cites frivolous allusions to dissonance and even more so consonance, and a failure to aspire to formal conceptions on a larger scale, criticizing the regressive ambitions of composers who look to the past in the misguided belief that they might draw closer to the great masters. Moreover, Schoenberg regards the combination of 'naturally primitive ideas of folk music' with overcomplicated compositional techniques as equally problematic. Finally, he attacks the '...ists',

[4] Joseph Auner, *A Schoenberg Reader: Documents of a Life* (New Haven: Yale University Press, 2003), p. 186. It should be pointed out that Schoenberg's reference to the middle road in this context is aphoristic. Moreover, he soon came to regard the *Three Satires* as outdated and even discouraged their performance. See Dorothee Schubel, 'Arnold Schönberg: Der neue Klassizismus', in *Klassizistische Moderne: Eine Begleitpublikation zur Konzertreihe im Rahmen der Veranstaltungen '10 Jahre Paul Sacher Stiftung'*, (Winterthur: Amadeus, 1996), pp. 455–6.

those of a mannerist disposition inhibited by the confines of their own categorising slogans.[5] The explicit mockery of the groups Schoenberg identifies provides the expressive incentive for the *Three Satires*, which were intended to warn younger contemporaries that it was not a good idea to attack him.[6] The middle road in this context symbolizes compromise and the failure of composers who do not take heed of the historical imperative contained in twelve-note music.

Theodor W. Adorno quotes Schoenberg's reference to the middle road on the very first page of *Philosophy of New Music*.[7] He draws on Schoenberg's comments in setting out the rationale for the book and the grounds for the decision to exclude all but the two extremes represented by the protagonists around whom the book is orientated: the retrospective Stravinsky and the progressive Schoenberg. Describing the transitions and compromises that fall between these extremes, Adorno refers to Bartók and to René Leibowitz's article 'Béla Bartók, The Possibility of Compromise in Contemporary Music' from 1947.[8] Leibowitz's article provides a contextualising backdrop for understanding Adorno's reference to compromise. A disciple of Schoenberg, Leibowitz believes that failure to embrace twelve-note techniques is tantamount to the denial of a moral obligation to the advancement of Western music. He argues that while Bartók's radical new chromaticism at times shows signs of meeting the demands of increasing complexity and formal coherence, particularly in his Fourth String Quartet, Bartók chooses the 'path of compromise'.[9] Adorno is reported to have been in strong agreement with Leibowitz's essay.[10]

Yet Adorno confers a more nuanced conception of compromise; indeed, his comments on Bartók hint at the ambiguity contained in the term. He describes Bartók's best works as reconciliation of Schoenberg and Stravinsky, and, in a footnote, refers to Bartók as one of 'the most progressive composers in European

[5] Auner, *A Schoenberg Reader*, p. 187.
[6] Schoenberg comments on this in a letter to Amadeo de Filippi dated 13 May 1949. See Auner, *A Schoenberg Reader*, p. 186.
[7] Theodor W. Adorno, *Philosophy of New Music*, trans. Robert Hullot-Kentor (Minneapolis: University of Minneapolis Press, 2006), p. 7.
[8] René Leibowitz, 'Béla Bartók, ou la possibilité du compromis dans la musique contemporaine', *Les temps modernes*, vol. 3 no. 25 (October 1947): pp. 705–34. For the English see 'Béla Bartók, The Possibility of Compromise in Contemporary Music', *Transition 48*, no. 3 (1948), pp. 92–123.
[9] Leibowitz, 'Béla Bartók, The Possibility of Compromise in Contemporary Music', p. 112.
[10] Danielle Fosler-Lussier cites a private letter from Adorno to Leibowitz, housed at the Sacher Foundation in Basel, in which Adorno expresses his agreement with the essay. See Danielle Fosler-Lussier, *Music Divided: Bartók's Legacy in Cold War Culture* (Berkeley: University of California Press, 2007), p. 33.

art music'.[11] Because of his affiliation with East European folk music, Adorno situates Bartók outside the tradition of progressive rationalisation in Western classical music. Yet he appears to suggest that since the material with which Bartók
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engages is untouched by this progress, he is able to critically engage with it and produce radical new expressions that display closer affinities with the avant-garde than with a nationalistic reaction.[12]

The compromise which Adorno addresses is, then, not entirely the same negatively-charged notion to which Schoenberg and Leibowitz refer: Adorno infers a greater dialectical subtlety which is often overlooked. For it might be argued that while extreme positions and coherent compositional methods recall the character of ideologies, the middle road, represented in the critically-minded composer, draws attention to the limitations of conceptual understanding and the paradoxes it contains as tradition develops in new directions.[13] This critical engagement with compositional techniques and conventions is intrinsic in Adorno's musical philosophy, which extends its reach far beyond concepts of advancing objective musical material along a chronological historical timeline. Even Schoenberg's twelve-note music, at the time of its inception, represents much more than a rational conclusion to the dissolution of tonal harmony into atonality: in bringing this historical process to a close, twelve-note music emphasizes the contradiction it contains as a condition of its creation. It draws incentive from the

[11] Adorno, *Philosophy of New Music*, pp. 8 and 176, note 4. Having written reviews of nearly all of Bartók's works composed before 1933 (the short texts together amount to the equivalent of a monograph in length), Adorno's attitude towards Bartók became progressively less positive, particularly in the 1950s. He eventually came to reject much of Bartók's music as extraneous to the progressive tradition represented by Schoenberg. His criticism centres largely on the use of folksong, and gives recourse to the exploitation of the political significance of folksong by the Third Reich. Yet in the last years before his death in 1969, Adorno told of his intention to thoroughly revise his position on Bartók, an intention that was never fulfilled. See János Breuer 'Adorno und die ungarische Musik', *Zeitschrift für Musiktheorie*, 5/2 (1974), pp. 23–7.

[12] Adorno's reference to Bartók in this context brings a greater level of nuance to his theory of music than is perceived in some readings. Raymond Geuss, for example, describes Adorno's failure to perceive any serious discontinuity in the development of music through the past 200 years. See Raymond Geuss, 'Form and "the New" in Adorno's "vers une musique informelle"' in *Morality, Culture and History* (Cambridge: Cambridge University Press, 1999), pp. 140–1. Yet, as Geuss points out (p. 162, note 3), Max Paddison reads Adorno's history of music as a more subtle dialectical interplay of continuities and discontinuities. See Max Paddison, *Adorno's Aesthetics of Music* (Cambridge: Cambridge University Press, 1997), pp. 218–56.

[13] Under 'present conditions' at the time of writing *Philosophy of New Music*, Adorno sees no alternative for the avant-garde than the rigidification of compositional technique in articulating the repudiation of organized society; however, he recognizes in Schoenberg's late works the potential for progress beyond internal musical processes that aspire to organic unity. See Adorno, *Philosophy of New Music*, pp. 19–20.

recognition of its own self-production in the context of its time.[14]

Following Adorno, music composed in the wake of twelve-note music cannot rely on the progressive development of the inner logic or objectivity of the musical material on its own terms. Instead, attention is shifted to the role of the subject in both facilitating a cumulative conclusion of the kind represented by twelve-note music and in achieving progression beyond. Compromise, or the middle road, corresponds with this emphasis on critical engagement and subjectivity as it seeks a path away from the conceptual extremes of either revisiting the past or the objective advancement of prefigured compositional languages.

While Bartók was geographically removed from the development of twelve-note methods in Germany, his chromaticism nevertheless offers an alternative to the statistically even distribution of the twelve pitch classes, at the same time that it creates new hierarchies and differentiation in the material. Moreover, the influence of Bartók on Ligeti, in ways that I will discuss, attributes new retrospective significance to Bartók's contribution, via Ligeti, extending his legacy to the heart of the avant-garde in the late 1950s and the 1960s.

Analysing Bartók

Ligeti was familiar with the writings of both Adorno and Leibowitz when he wrote an article for the journal *Új Zenei Szemle* (New Music Review) on chromaticism in Bartók's music, published in 1955.[15] The article takes as its point of departure Bartók scholar Ernő Lendvai's proposition that: 'If we look back at the history and development of harmonic thinking, then we are bound to say that the birth of Bartók's axis system was a *historical necessity*, signifying the logical culmination of the

[14] Adorno pursues the ideas in the music 'to the point that the rigor of the objects themselves reverses into their critique...The works themselves are successful to the extent that they shape the contradiction and in this shaping allow the contradiction to reappear in the marks of their own imperfection, while at the same time the force of the contradiction defies the forming process and destroys the works.' Adorno, *Philosophy of New Music*, p. 24. See also David Roberts' reading of 'Schoenberg and Progress' from *Philosophy of New Music* in David Roberts, *Art and Enlightenment: Aesthetic Theory after Adorno* (Lincoln: University of Nebraska Press, 1991), pp. 1–58, and Peter Edwards, 'Convergences and Discord in the Correspondence between Ligeti and Adorno', *Music & Letters*, vol. 96, no. 2 (2015), p. 230.

[15] György Ligeti, 'Zur Chromatik Bartóks', translated from Hungarian to German by Éva Pintér, in *Gesammelte Schriften*, ed. Monika Lichtenfeld (Mainz: Schott, 2007), vol. 1, pp. 295–301. Originally 'Megjegyzések a bartóki kromatika kialakulásának egyes feltételeiről', *Új Zenei Szemle*, vol. 6 no. 9 (September 1955), pp. 41–44. Ligeti cites the same Leibowitz article as Adorno in another paper from the late 1950s, broadcast on Westdeutscher Rundfunk, Cologne: 'Über Bartóks *Mikrokosmos*', in *Gesammelte Schriften*, vol. 1, p. 320.

development of Western music and to some extent its climax'.[16] Ligeti then proceeds to track a historical narrative that provides an alternative to the understanding of twelve-note music as the logical outcome of the dissolution of tonality

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into atonality; an alternative derived from the axis system introduced in Lendvai's analyses of Bartók's music.

Ligeti recounts the consequences of the overtone system for the creation of diatonic music, and the significance of the perfect fifth in twelve-note equal temperament and in the development of tonal forms. He points out that the non-invertible structure of the overtone series, ascending from the fundamental by increasingly smaller intervals, is reflected in the irreversible temporal direction in diatonic harmony. The order of two chords, for instance, cannot be switched without fundamentally altering the character of the relationship between them: a V-I cadence connotes closure while a I-V cadence remains open.[17] This gravitation towards the tonic generates the temporal impetus in tonal forms that spring from the formation of cadences using dominant chords and modulations from secondary dominant chords.

Ligeti then traces the dissolution of tonality into Wagnerian thematic-motivic music increasingly devoid of cadential features and characterised by a sense of perpetual tension: 'When all chords have a dominant function, there is no dominant function, moreover, no function'.[18] The subsequent further dissolution of diatonicism results in a more equal distribution of the twelve pitch classes of the tempered system and eventually leads to Schoenberg's twelve-note music. Given the lack of functionality to connect the chords to one another, and harmonic structures no longer governed by the bottom-up principle of the overtone system, Ligeti describes twelve-note music as 'static' and 'quasi timeless' in its failure to elicit a sense of direction. The music is no longer irreversible in its temporal course, and by structuring material in twelve-note rows, the composer relinquishes control over the harmony.[19]

[16] 'Zur Chromatik Bartóks', p. 295. Here quoted from Ernő Lendvai, *Bartók's Style*, trans. Paul Merrick (Budapest: Akkord, 1999), p. 15 (emphasis belongs to Lendvai). Also quoted in Peter Edwards, *György Ligeti's Le Grand Macabre: Postmodernism, Musico-Dramatic Form and the Grotesque* (London and New York: Routledge, 2016) p. 103.

[17] 'Zur Chromatik Bartóks', p. 296.

[18] 'Zur Chromatik Bartóks', p. 296, my translation.

[19] 'Zur Chromatik Bartóks', p. 298. Ligeti's critique of twelve-note music comes surprisingly early, given that the article was written in communist Hungary (twelve-note music was subject to censorship by the regime) at least a year before he fled to the West in 1956. By comparison,

Such a compositional method, without the momentum provided by gravitation towards any tonal centre, emphasizes its own incompatibility with the qualities immanent to the twelve pitch classes it employs, and as such expresses the contradiction on which it is based. As a way out of this dilemma, Ligeti suggests the chromatic techniques of Bartók, which open up other possibilities for the twelve-note tempered system: 'While Schoenberg saw the culmination of atonality in the twelve-note technique, Bartók considered the twelve-tone system as a given number of pitches without the necessity of formation.'[20] Such an approach offers a means to achieve differentiation between the twelve pitch classes, restoring temporal direction in the music; the development of intervallic patterns appeals to a greater degree to the expectations and anticipations of the listener. Bartók is said to combine the two contradictory systems – that of the bottom-up principle of the overtone series and functional harmony, and the tempered, twelve-note principle – achieving a higher synthesis. Ligeti refers to this new reference system within the twelve pitch classes as the *Distanzprinzip* (distance principle).[21] The division of the twelve pitch classes into groups of two, three, four and six allows for the exploration of the intervallic or spatial qualities in the material, resulting in a more symmetrical pitch hierarchy and opening up for a greater level of consequence between horizontal melodic lines and vertical harmony.[22] Not only does the *Distanzprinzip* allow for the exploration of intervallic qualities from the bottom up, but also from the top down.

Yet, as Ligeti argues, even though Bartók's chromaticism provides a timely historical response to perceived problems in tonality and dodecaphony, the principles

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of his compositional technique should not simply be appropriated or the composer risks becoming a pale imitation of Bartók. These principles do not represent a final solution, as any true artistic statement develops further compositional principles adequate to the demands of new expressive forms.[23]

The differentiating factors in Bartók's music provide the impetus for a move beyond perceived constraints on vertical and horizontal consolidation in twelve-

Xenakis's brief but famous critique on serialism, 'The Crisis of Serial Music', was published the same year. See Yannis Xenakis, 'La crise de la musique sérielle', *Gravesaner Blätter*, no. 1 (July 1955), pp. 2–4.

[20] 'Zur Chromatik Bartóks', p. 299, my translation.

[21] 'Zur Chromatik Bartóks', p. 299.

[22] This is illustrated in detail in Lendvai's study, as Ligeti indicates: 'Zur Chromatik Bartóks', p. 300.

[23] 'Zur Chromatik Bartóks', pp. 300–301.

note music, and offer an alternative to the concession of control to the linearity of the twelve-tone row. As Ligeti argues, a disregard for the possibilities that arise from the layering of the rows – their simultaneity – limits the potential for the historical accumulation of affect value associated with tension or release and contrasting levels of consonance or dissonance.[24] With Bartók's music Ligeti identifies a means to understand the relationships between notes: not through diatonic functionality or any other constructed system, but in terms of symmetrical scalar patterns and intervallic differentiation. In a presentation on Bartók's harmony, broadcast on the Bavarian Radio in 1961, Ligeti reiterates the possibilities presented by a more symmetrical subdivision of the octave into smaller groups. As shown in Figure 9.1, he divides the twelve pitch classes into two groups of six, forming two six-note whole tone scales, one starting on C and the other starting on D♭:[25]

While each of these two groups of whole-tone segments in themselves have a diffuse quality, Ligeti points out that when used in combination the forces of attraction generated by the minor second displacement cause the segments to become like two electrically charged bodies.[26] This can be heard in the fourth movement of Bartók's *Music for Strings, Percussion and Celesta* (1936). The force of attraction is limited in traditional tonal harmony shaped by the influence of the overtone series and the gravitation towards a tonic, whereas in Bartók the force of the minor second is equally potent and explored in all directions. Countless other permutations of this principle are found throughout Bartók's œuvre: in the third movement of the Concerto for Orchestra (1943, bars 22–8) two segments of six notes are again featured, but this time the division of the twelve pitch classes is determined by the alternating intervals of a minor third and minor second – the first segment starting on C and the second on B♭, as shown in Figure 9.2.

Fig. 9.1 Two symmetrical six-note groups[27]

[24] 'Zur Chromatik Bartóks', p. 298.
[25] These examples feature in 'Über Bartóks Harmonik', in *Gesammelte Schriften*, vol. 1, p. 302.
[26] 'Über Bartóks Harmonik', p. 303.
[27] These examples feature in 'Über Bartóks Harmonik', p. 302.

Fig. 9.2 Two symmetrical minor third/minor second groups[28]

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Bartók's intervallic differentiation resembles an advanced and flexible amalgamation of archaic forms, such as pentatonicism and church modes, with whole tone scales and chromaticism.[29] This approach facilitates progression beyond both tonal form structures and past models, and the rational advancement of organized dissonance, instead offering what might be described as an innovative halfway point.

A Creative Impetus

The *Distanzprinzip* prefigures a related idea presented by Ligeti in the article 'Metamorphoses of Musical Form', published in *die Reihe* in 1960.[30] Incentive here is again drawn from the critique of music that surrenders to horizontal, statistical consistency. Ligeti argues that linear counterpoint, such as that found in twelve-note music, fails to recognise possibilities that arise from the vertical coincidence of the layers.[31] This inconsequence, resulting from statistical complexes, is termed 'high permeability'. 'Low permeability', by contrast, is taken to denote a greater degree of coalescence between horizontal lines, altering the 'vertical density-relationships'. This is found in the music of Palestrina and the way in which simultaneous parts lock into one another according to precise rules. Ligeti also describes tonal music as being of relatively low permeability due to its passing notes, suspensions, dissonances and consonances, which correlate with the overall form structure.[32]

[28] These examples feature in 'Über Bartóks Harmonik', p. 304.
[29] 'Über Bartóks *Mikrokosmos*', pp. 318–9.
[30] György Ligeti, 'Metamorphoses of Musical Form', in *die Reihe* 7 (London: Universal Edition, 1965). Originally 'Wandlungen der musikalischen Form', in *die Reihe* 7 (Vienna: Universal Edition, 1960). Conceived and written in collaboration with Harald Kaufmann in 1958, see *Gesammelte Schriften*, vol. 1, p. 104.
[31] Ligeti attributes these ideas to *Philosophy of New Music*. See 'Metamorphoses of Musical Form', p. 7, footnote 7.
[32] Ligeti, 'Metamorphoses of Musical Form', p. 8.

Low permeability is, then, applicable to a wide range of music. Yet the idea is equally significant for what it does not represent. While it aspires to a quality of past music that holds potential for progress in the new post-tonal context, it neither constitutes a return to the tonal means of the past, nor the advancement of systematic compositional parameters. Ligeti's works of the late 1950s and early 1960s governed by the principles of his self-styled 'micropolyphony', such as *Apparitions* (1959) and *Atmosphères* (1961), are representative of just such a response to both serialism and past musical styles. The dense layering of canonic threads moving in stepwise, chromatic motion, and the interlocking of melodic strands, which are not directly audible, instil a sense of process into the vast sound objects. This perceptual acquiescence stands in contrast to the staticity Ligeti perceives in serialism.[33]

Similar compositional processes link both of Ligeti's string quartets and the influence of Bartók. In an interview in 1978, Ligeti describes the challenge of creating a dense polyphonic weave in the medium of chamber music and refers to a section from the First Quartet (1953–4, from bar 781, shown in Fig. 9.3) as a 'kind of fugato, where the subject emerges from the fusion of two diatonic parts played by solo instruments – forming a chromatic subject. The two instrumental parts – two violins or a violoncello and a viola – are not fused but intertwine much more like twisted strands of a thread.'[34] Ligeti sums up this process in a way that corresponds with his earlier analyses of Bartók discussed above: 'Two diatonic solo parts combine to create a composite chromatic line, which is an idea characteristic of Bartók. That was my point of departure for "woven" music like *Atmosphères*.'[35]

[33] See Jonathan W. Bernard, 'Inaudible Structures, Audible Music: Ligeti's Problem and His Solution', *Music Analysis*, vol. 6, no. 3 (1987), pp. 207–36.
[34] *György Ligeti in Conversation*, p. 15.
[35] *György Ligeti in Conversation* , p. 15.

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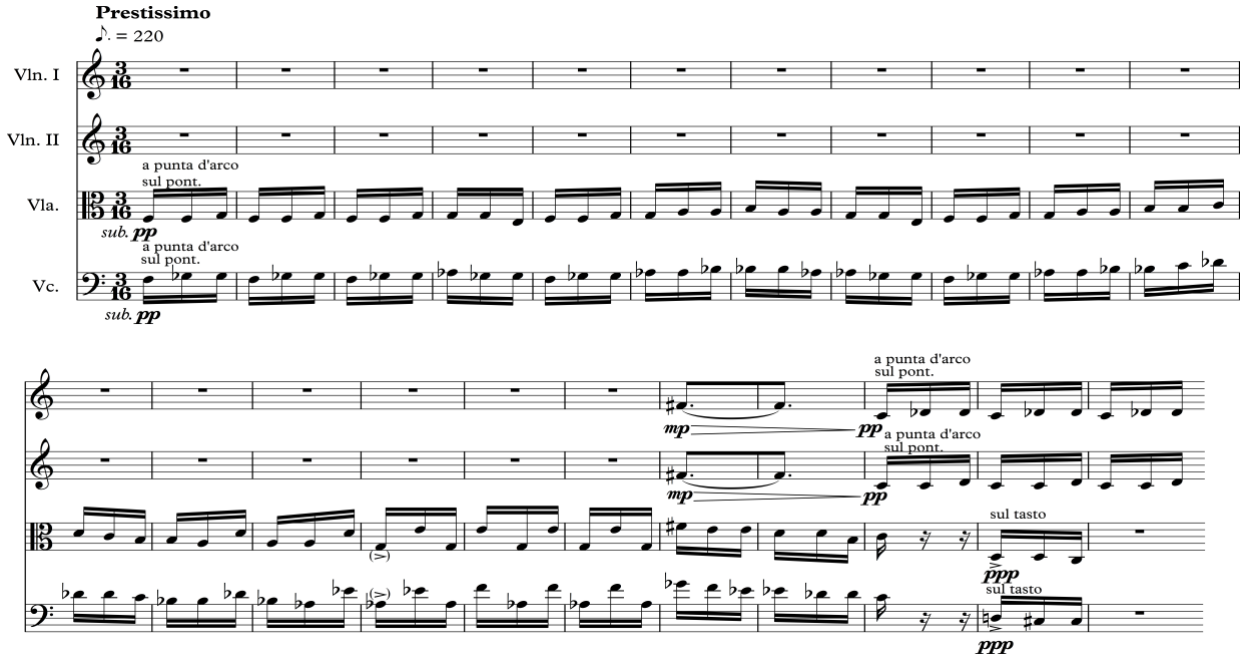
Fig. 9.3 First String Quartet, bars 781–803.



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A similar approach is found in the Second String Quartet (1968), in which the influence of Bartók is again palpable. In the fifth movement, chromatic tension develops during the opening bars as a rapidly repeating minor third interval (F♯-D♯) is gradually filled with an interior second interval in all four string parts; this forms a descending diatonic scalar fragment (F♯-E-D♯) which is offset rhythmically between the strings (Fig. 9.4).[36] This process results in the woven texture Ligeti describes.

Diatonic features that maintain a low level of permeability are also present in other works of the late 1960s and early 1970s, including *Lux aeterna* (1966), *Ramifications* (1968–9), and the first movement of the *Chamber Concerto* (1969–70). Moreover, in *Clocks and Clouds* (1972–3) and *Melodien* (1971) an increasing level of consonant intervals can be detected.[37] By the end of the 1970s transparent

[36] See Amy Bauer's analysis of this movement and the third relations in Chapter 13.

[37] See Jonathan W. Bernard, 'Ligeti's Restoration of Interval and Its Significance for his Later Works', *Music Theory Spectrum*, vol. 21, no. 1 (Spring 1999), p. 10, see also p. 5.

intervallic structures are definitively reinstated on a surface level in the Passacaglia finale of the opera *Le Grand Macabre*. As becomes clear in the Passacaglia, this does not imply a return to harmonic progression, or triadic or tonal functionality. Here chromaticism is fused with consonant intervals. An initial frame of twenty-four major and minor-sixth dyads, comprising all twelve pitch classes four times, is gradually supplemented by the irregular addition of further inversions of these sixths.[38] The resulting intervallic differentiation adds a sense of direction, consolidating the harmonic structure with the ostinato as the finale unfolds.

While the Passacaglia is representative of the culmination of a gradual progression beyond textual saturation, it is also reminiscent of the kind of chromaticism found in Ligeti's music composed in Hungary in the late 1940s and early 1950s. Many of the works from this period feature a similar application of intervallic structures, often consonant with chromatic inflections, yet without clearly established pitch centres or harmonic functionality. Take for instance the *Invention* for piano (1948), composed while Ligeti studied at the Franz Liszt Academy in Budapest under Sándor Veress. It was Veress who suggested Ligeti compose a 'half Bachian' invention 'in his own style'.[39] The brevity and rapid tempo of the piece (Risoluto ♩ = 88) perhaps deter from the significance of key features also found in Ligeti's later compositions. The allusion to Bach counterpoint is tangible, yet the melodic and harmonic development is indebted to Bartók.[40] Intrinsic to the intervallic structure is the expansion or diminution, or unfolding and infolding of the intervals in the melodic segments of the kind described in Ligeti's analyses of chromaticism in Bartók's music.[41] In essence, this intervallic procedure shifts register chromatically throughout, and the tessitura is expanded as the left and right hand diverge. The form is largely determined by this expansion.

Chromatically expanding and contracting melodic threads across different registers also play an important role in *Atmosphères* and *Lontano*. Moreover, in *Atmosphères* different pitch groupings drawn from the twelve pitch classes are highlighted by changes in timbre as they emerge from and fade into the sustained opening cluster spanning five-and-a-half octaves. Among these are two opposing

[38] See Edwards, *György Ligeti's Le Grand Macabre*, p. 99.
[39] Ligeti, *Gesammelte Schriften*, vol. 2, p. 141.
[40] See also Friedemann Sallis' analysis of the *Invention* in light of Ligeti's Bartókian heritage: 'La transformation d'un héritage: Bagatelle op. 6 no 2 de Béla Bartók et Invenció (1948) pour piano de György Ligeti', in *Revue de musicologie*, vol. 83, no. 2 (1997), pp. 281–93.
[41] This unravelling of harmonic material is typical of the kind of pattern-generated processes which Ligeti refers to as net-structuring. See Miguel Roig-Francoli, 'Harmonic and Formal Processes in Ligeti's Net-Structure Compositions', *Music Theory Spectrum* 17 (1995), pp. 242–67. See also Jonathan Bernard, 'Voice Leading as a Spatial Function in the Music of Ligeti', *Music Analysis*, vol. 13, no. 2/3 (July–October 1994), pp. 227–53.

groups derived from the white and black notes of the piano, a diatonic group (trumpets, trombones, oboes and bassoons) and a pentatonic group (flutes, clarinets and horns), giving rise to chromatic tension as the one sound event fades into the next (see bars 17–9, Fig. 9.5).

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Fig. 9.4 Second String Quartet, movement V, bars 1–5.

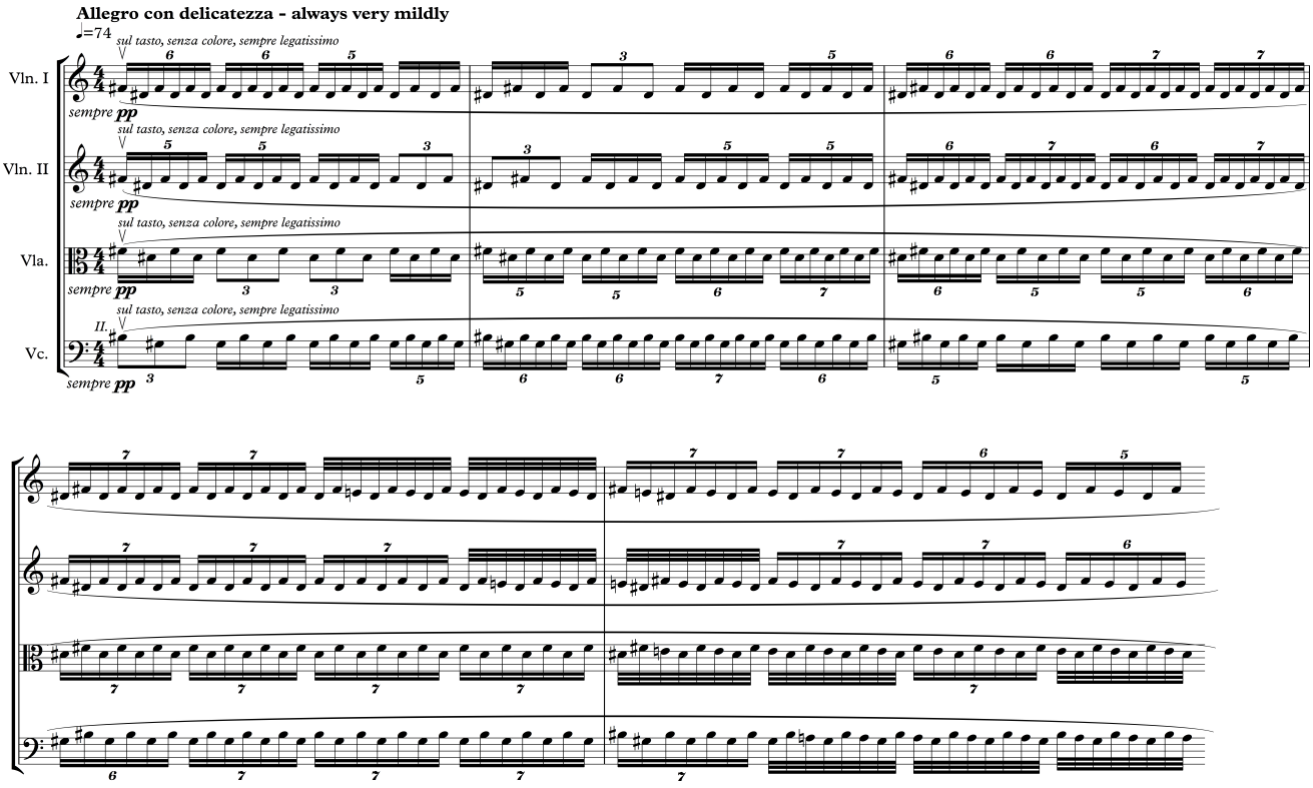

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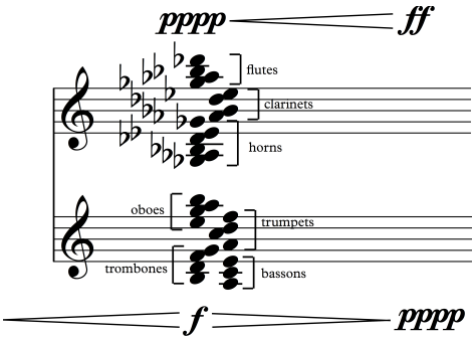
Fig. 9.5 White- and black-note aggregates in *Atmosphères*, bars 17–9.



Again, this intervallic structuring of pitches bears similarities with features Ligeti identifies in the analyses of Bartók's music.

The principles of unfolding and the symmetrical division of the twelve pitch classes into segments or flexible intervallic patterns, as described above, remain touchstones in the development of unique compositional ideas throughout Ligeti's later works. The juxtaposition of pentatonic and diatonic groups is found in the piano etude *Désordre* (1982), in which the left hand plays white notes and the right hand black notes, while the rhythmic patterns and gradual registral shifts provide differentiation and momentum as the etude spirals forward. This approach is not unprecedented in the piano repertoire of the twentieth century: a similar separation of the black and white notes is found in 'Broulliards' by Debussy. From bar 99 of *Désordre* (counted in the right hand stave) the music shares significant expressive affinities with Debussy's piece.

Related intervallic structures can be heard in the Violin Concerto (1990–2), in which a horizontal unfolding pattern contributes to the momentum in the first movement. The opening solo violin expands from a single interval to encompass a wide-ranging spectrum of open harmonics, supported by the strings as the polyphonic texture becomes more intricate. From this delicate but dense weave of sound certain pitches impinge on the foreground, accented by the solo violin and reinforced by the marimba (beginning at bar 14). These notes gradually become more frequent in anticipation of an imminent change of texture. This gradually unfolding melodic sequence mirrors the expanding tessitura of the opening harmonics and provides a horizontal focal point against the background flux, maintaining a sense of consequence between the two. The first four notes of the

melodic sequence ascend before these are then repeated in a descending motion with extra notes tagged on the end. This pattern repeats in an ascending and descending

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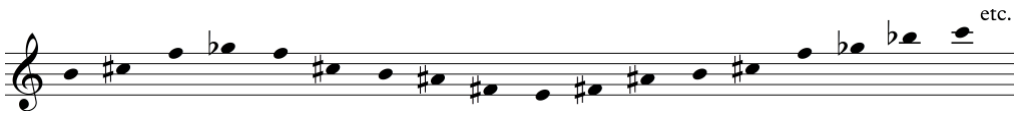
motion as the tessitura expands, based on the intervals of the semitone, tone, major third and minor third. The pitches of the melodic sequence unfold symmetrically from a central pivot, resulting in the extrapolation of a horizontal sequence (Fig. 9.6):

Fig. 9.6 Violin Concerto, movement I, bars 14–34, accented notes of the melodic sequence, marimba and solo violin.



While the unfolding expansion of harmonic and intervallic structures can be traced to Bartók, Ligeti demonstrates the relevance of ideas related to the *Distanzprinzip* in post-serial music, whether in a consonant or dissonant context. The music rises above the limitations of prefigured compositional techniques and harmonic functionality and offers a response to the inherent problems facing any rational project to assimilate musical knowledge. Ligeti engages with the techniques and musical expressions of the past, yet draws attention to what lies beyond, not in terms of the rational, cumulative consequences of the past, but differentiation and flexibility that lead into new and unexpected territory.

This chapter has focused on the influence of Ligeti's Bartókian heritage on his approach to composing pitch material. This narrative delineates a middle road beyond both tonal idioms and the systematic organisation of pitch material. Yet the implications of the middle road do not end here and may be applied in investigating Ligeti's references to genre models and styles of the past in his music. Ligeti's appraisal of the past by no means constitutes a revisiting of the past of the kind censured by Schoenberg in his comments on the middle road; rather, it represents a critical transformation of the past in the present.[42] In works such as *Le Grand Macabre* and the Horn Trio (1982), in which references to the musical past are explicit, the middle road is neither regressive, nor is it radically progressive in

[42] Amy Bauer traces Ligeti's critical engagement with the past through a study of the lament topos, which permeates his œuvre. See Amy Bauer, *Ligeti's Laments: Nostalgia, Exoticism and the Absolute* (Farnham: Ashgate, 2011).

terms of musical material; instead, it signifies the ways in which these references denote a critical awareness of their function and self-production, and how the consequences of tradition are absorbed and surpassed.

The examples from Ligeti's music discussed here give indication of the value of the middle road; a notion which portends to a dialectical mode of thought that seeks beyond the perceived restraints of fixed notions of pastness on the one hand and objective material progress on the other. By questioning such dichotomies the music suggests an alternative historical trajectory; Ligeti's understanding of Bartók presents just one of many potential narratives. Moreover, the middle road may be said to accentuate a sense of difference, a contrast to extremes of convention and established knowledge – that which has come before or might be logically predicated – as represented in the conceived counterpoles of dichotomous thought. By challenging stable conceptualisation the music displays an aversion to closure,

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as harmonic processes with a greater level of symmetry stimulate perpetual variation and differentiation. In the music of Bartók, Ligeti finds the incentive to resist convention at the same time that he extends Bartókian harmonic and melodic principles in new directions.